

IN THE CLAIMS:

1. (Currently amended) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport resulting in decreased NE clearance in a subject, the method comprising:

- (a) obtaining a biological sample from the subject; and
- (b) detecting a polymorphism of a NE transporter gene encoding an amino acid change in the biological sample from the subject, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport resulting in decreased NE clearance.

2. (Original) The method of claim 1, wherein the susceptibility of the subject to sub-optimal NE transport is further characterized as susceptibility to orthostatic intolerance.

3. (Original) The method of claim 1, wherein the biological sample comprises a nucleic acid sample.

4. (Currently amended) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport resulting in decreased NE clearance in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene comprises a G to C transversion within NE transporter exon 9 (nucleotides 129-257 of SEQ ID NO: 15), the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport resulting in decreased NE clearance.

5. (Currently amended) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport resulting in decreased NE clearance in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and

- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene comprises a G to C transversion within NE transporter exon 9 (nucleotides 129-257 of SEQ ID NO: 15) and encodes a NE transporter polypeptide having a proline moiety at amino acid 457 of SEQ ID NO: 1, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport resulting in decreased NE clearance.

6. (Currently amended) The method of claim [[3]] 5, wherein the polymorphism is detected by amplifying a target nucleic acid in the nucleic acid sample from the subject using an amplification technique.

7. (Original) The method of claim 6, wherein the polymorphism is detected by amplifying a target nucleic acid in the nucleic acid sample from the subject using an oligonucleotide pair, wherein a first oligonucleotide of the pair hybridizes to a first portion of the NE transporter gene, wherein the first portion includes the polymorphism of the NE transporter gene, and wherein the second of the oligonucleotide pair hybridizes to a second portion of the NE transporter gene that is adjacent to the first portion.

8. (Currently amended) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport resulting in decreased NE clearance in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene encoding an amino acid change in the biological sample from the subject, wherein the polymorphism of the NE transporter gene is detected by amplifying a target nucleic acid in the nucleic acid sample from the subject using an oligonucleotide pair, wherein a first oligonucleotide of the pair hybridizes to a first portion of the NE transporter gene including exon 9 (nucleotides 129-257 of SEQ ID NO: 15) and the polymorphism of the NE transporter

gene, and wherein the second oligonucleotide of the pair hybridizes to a second portion of the NE transporter gene that is adjacent to the first portion, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport resulting in decreased NE clearance.

9. (Original) The method of claim 7, wherein the first and the second oligonucleotides each further comprise a detectable label, and wherein the label of the first oligonucleotide is distinguishable from the label of the second oligonucleotide.

10. (Original) The method of claim 9, wherein said label of said first oligonucleotide is a radiolabel, and wherein said label of said second oligonucleotide is a biotin label.

11. (Original) The method of claim 3, wherein the polymorphism is detected by sequencing a target nucleic acid in the nucleic acid sample from the subject.

12. (Original) The method of claim 11, wherein the sequencing comprises dideoxy sequencing.

13. (Original) The method of claim 3, wherein the step of detecting the polymorphism is detected by contacting a target nucleic acid in the nucleic acid sample from the subject with a reagent that detects the presence of the NE transporter polymorphism and detecting the reagent.

14. (Currently amended) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport resulting in decreased NE clearance in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene is detected by contacting a target nucleic acid in the nucleic acid sample from the subject with a reagent that detects the presence of the NE transporter polymorphism and detecting the reagent, wherein the reagent detects a G to C transversion within NE transporter exon 9

(nucleotides 129-257 of SEQ ID NO: 15), the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport resulting in decreased NE clearance.

15. (Currently amended) A method of screening for susceptibility to sub-optimal norepinephrine (NE) transport resulting in decreased NE clearance in a subject, the method comprising:

- (a) obtaining a biological sample from the subject, wherein the biological sample comprises a nucleic acid sample; and
- (b) detecting a polymorphism of a NE transporter gene in the biological sample from the subject, wherein the polymorphism of the NE transporter gene is detected by contacting a target nucleic acid in the nucleic acid sample from the subject with a reagent that detects the presence of the NE transporter polymorphism and detecting the reagent, wherein the reagent is an oligonucleotide primer as set forth in SEQ ID NO:9 or SEQ ID NO:10, the presence of the polymorphism indicating the susceptibility of the subject to sub-optimal norepinephrine transport resulting in decreased NE clearance.

16. (Original) The method of claim 1, wherein the biological sample comprises a polypeptide sample.

17. (Original) The method of claims 1, 2 or 3, wherein the subject is a human subject.

18-79. (Canceled).

80. (Previously presented) The method of claim 5, wherein the susceptibility of the subject to sub-optimal NE transport is further characterized as susceptibility to orthostatic intolerance.

Please add the following new claim:

81. (New) The method of claim 5, wherein the polymorphism results in a norepinephrine transporter comprising an amino acid sequence as set forth in SEQ ID NO: 4.